ABSTRACT OF JP 02000001792

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TITLE: METHOD FOR WET-ETCHING PYRAMIDAL STRUCTURE ON SURFACE OF **SILICON** AND ETCHING SOLUTION

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ABSTRACT:

PROBLEM TO BE SOLVED: To form a uniform and small pyramidal structure with high reproducibility by subjecting the surface of **silicon** to wet etching by using a soln. contg. water, an alkaline reagent and an aq. soln. of isopropanol and alkaline ethylene glycol.

SOLUTION: The surface of **silicon** in the (100) orientation is subjected to wet **etching** by using an **etching soln.** at least simultaneously contg. **water,** an alkaline reagent such as NaOH, **KOH and an aq. soln.** of isopropanol and alkaline **ethylene glycol** and furthermore mixed with a silicate according to necessity. The content of isopropanol is controlled to 0.5 to 5 vol.% and is made higher than the ratio of **ethylene glycol,** and the highest ratio thereof is preferably controlled to 1:1. This **etching** is executed preferably with 60 to 80°C **etching soln.** temp. and for 5 to 20 min **etching** time. In this way, a pyramidal structure having dimensions of about ≤2 μm is formed to reduce the reflection of incident light and to increase the intensity of absorption light.